



## Exploring Green Factors and Green Practices: Best Green Small Hotels in Thailand's Active Beach Cluster

Narinsiree Chiangphan \* & Rugphong Vongsaroj

*Graduate School of Tourism Management, National Institute of Development Administration, Bangkok, 10240 Thailand*

### Article info

#### *Article history:*

Received: 29 June 2023

Revised: 5 September 2023

Accepted: 13 September 2023

#### *Keywords:*

Green practices, Green factors,

Green hotel, Small hotel

### Abstract

This qualitative study aimed to investigate the components of green practices and green factors that contribute to the successful implementation of sustainable practices in small hotels in Thailand. The study utilized a framework derived from world-class green hotels and incorporated the Triple Bottom Line (TBL) concept. Through interviews with 12 small hotel owners and managers in the Thailand Active Beach Cluster, an outline for implementing green practices was developed. Content analysis allowed for a thorough and structured analysis of the interview data, enabling the identification of key insights and trends that informed the development of the green practices implementation plan. The findings revealed that small hotel green practices comprised four dimensions: Optimizing the utilization of community resources (OCR), Integrating environmental concepts to gain competitive advantage (ICA), Developing and Disseminating environmental awareness to customers (DEC), and Protecting the environment (PE). Additionally, through a comprehensive examination of literature and interviews, 20 green factors were identified as crucial elements contributing to the successful implementation of green practices in small hotels in Thailand: strategic planning, innovative and energy-efficient technologies, perceived green standard and green law, competitors, supplier, government campaign, effective marketing, owner's awareness, partner, environmental leadership, green knowledge, hotel guests' awareness, cost allocation for environment activities, infrastructure and system investment, trend, government regulations, Employee adaptability, rewards and incentive, facilities and resources, and clear organizational identity. These findings offer valuable insights into the effective and efficient implementation of green practices in the context of small hotels in Thailand. This study can serve as a valuable reference point for various types of hotels worldwide, facilitating the adoption of green practices that benefit not only the environment but also the long-term economic prospects and reputation of the hospitality sector as a whole.

## Introduction

### *Small hotels and environment*

Global warming is a pressing global concern that necessitates worldwide attention and collaborative endeavors to identify effective solutions (Victor, 2011). It is apparent that all industries, without exception, have made contributions to this issue (Houghton, 2009) through diverse mechanisms, including the emission of waste, excessive utilization of power, and the unsustainable exploitation of resources. The hotel industry, like many other sectors, has a significant impact on the environment (Jayaweera, 2015; Ivkov et al., 2019). According to the U.S. Energy Information Administration (2018), hotels account for approximately 15% of commercial building energy consumption. This high energy demand contributes to greenhouse gas emissions and the depletion of natural resources. The World Wildlife Fund estimates that hotels in the United Kingdom alone produce approximately 289,700 tons of food waste annually (Marchant & Cloy 2017). Improper waste management practices can lead to pollution of landfills and contribute to greenhouse gas emissions, as organic waste decomposes and releases methane, a potent greenhouse gas (Ekanem et al., 2013). In Thailand, the electricity consumption of hotel buildings was approximately 12% of total electricity consumption in the building sector (Tangon et al., 2018). Assistant Professor Thon revealed that a concerning 77% or approximately 140,000 out of the total 107,800 rai of coral reef area in Thai seas is currently in a deteriorating condition (Matichon, 2018). The primary culprit responsible for the degradation of coral reefs is tourism, specifically the release of polluted water by beachfront hotels, resorts, and residential houses. These activities contribute significantly to the decline in the health of coral reefs (Thamrongnawasawat, 2018).

The hospitality industry, including hotels of all sizes, significantly contributes to environmental problems. From energy consumption to waste generation, hotels have a notable ecological footprint (Filimonau, 2011). While larger hotels typically have more financial resources and capabilities to tackle these issues (Kasim et al., 2014), it is disconcerting to observe the lack of environmental consciousness among many small hotels (Agyeiwaah, 2020). As a result, SMEs, including small hotels, are targeted in awareness-raising and information dissemination efforts to improve consumption and production patterns (Graafland, 2016; Kasim, 2009). Small hotels are considered to have good growth prospects, but they often face budget constraints, lack of

knowledge and support from policies in addressing environmental problems (Morrison, 1998; Pikkemaat & Zehrer, 2016). This leads to a tendency to ignore environmental issues, whereas large companies with more resources have been proactively incorporating environmental management into their strategies (Kasim, 2009).

Moreover, green practices or green standards are often considered more suitable for luxury or chain hotels. Many small hotel owners or managers perceive the adherence to green principles as a responsibility primarily assumed by larger hotels (Chan, 2013; Mensah, 2006). Currently, there is a lack of specific green practice designs tailored to the unique constraints faced by small hotels, particularly in terms of financial limitations and staffing constraints. As a result, there is a need for the development of green practice designs specifically tailored to the context of small hotels. These designs should emphasize budget efficiency and consider the constraints and limitations of small-scale operations (Fernández-Robin et al, 2019). By providing practical green practice designs, small hotels can effectively engage in sustainability initiatives without compromising their financial viability (Malcheva, 2019). Moreover, such tailored green practices for small hotels can create competitive advantages by attracting environmentally conscious guests who value sustainable practices, fostering positive brand image, and aligning with evolving consumer preferences for ecofriendly accommodations.

### *Small hotels in Active Beach Cluster*

Based on data derived from Thailand's 2018 National Statistical Office, Thailand possesses a total of 24,389 hotels. These accommodations fall into three distinct categories: 21,490 hotels with fewer than 60 rooms, 2,322 hotels with room capacities ranging from 60 to 149, and 577 hotels featuring 150 rooms or more (National Statistical Office, 2018). Notably, the majority of these establishments belong to the category of hotels with fewer than 60 rooms, constituting a significant 88% of Thailand's overall hotel inventory. This statistical observation underscores the prevalence of small-scale hotels in Thailand's hospitality sector.

The dominance of hotels with fewer than 60 rooms represents a crucial facet of the Thai hotel industry. As a result, proposing the development of a model to encourage the transformation of these smaller hotels into eco-friendly or "green" establishments holds the potential to initiate a substantial shift within the broader hotel

industry in Thailand. Such an initiative could yield considerable positive impacts on sustainability, enhance the guest experience, and bolster market competitiveness, positioning Thailand as a frontrunner in the adoption of sustainable hospitality practices.

Despite the growing global interest in green practices within the hotel industry, the adoption of such practices in Thailand appears to be relatively low. This can be observed through the limited number of hotels seeking certification from prominent organizations promoting environmental management standards. For instance, in the year 2022, only 245 out of a total of 24,269 hotels nationwide sought certification from the Green Leaf Foundation—an organization dedicated to developing environmental management standards specifically for the hotel and tourism sector (Green Leaf Foundation, 2022). Similarly, in 2021, a mere 87 hotels applied for certification under the Department of Environmental Quality Promotion (DEQP)'s Green Hotel standards. These figures indicate that most hotels in Thailand have yet to prioritize and actively pursue green practices.

Given the commendable reputation of the region for its eco-friendly small hotels, it becomes evident that both Thailand's tourism policy and various international studies highlight the significance of hotels in the locales of Koh Mak, Koh Kood, and Koh Chang (Nitisoravut, et al, 2014). Simultaneously, this area and surrounded area grapples with elevated levels of pollution stemming from tourism activities, underscoring the imperative to promote environmentally sustainable hotels (Office of Natural Resources and Environmental Policy and Planning, 2019). The Active Beach Cluster emerges as an instructive case study for small hotels across diverse regions in Thailand. Firstly, it stands as a sought-after destination for international eco-conscious travelers within Thailand. This popularity underscores its relevance as a prime location for green tourism practices. Secondly, the Active Beach Cluster serves as a quintessential illustration of a unique tourist destination endowed with rich natural attractions. This distinctiveness accentuates the importance of studying its sustainable practices. Lastly, as documented by the Office of Natural Resources and Environmental Policy and Planning in 2019, the Active Beach Cluster confronts substantial challenges pertaining to pollution and waste management, rendering it one of the most impacted areas in the nation. This environmental context further underscores the need for comprehensive research and sustainable initiatives.

Furthermore, the array of hotels in this region is notably diverse, encompassing luxury, budget, water sports-centric, culinary-focused, and architecturally distinctive establishments. This diversity mirrors the spectrum of hotels found in various parts of Thailand, making studies conducted here pertinent and transferable as models for broader application. In summary, the multifaceted characteristics and challenges of the Active Beach Cluster render it a compelling focal point for research and as a source of valuable insights that can be adapted and implemented by small hotels across different regions in Thailand.

Therefore, it is crucial to identify and develop green practices that are tailored to the specific nature and characteristics of small hotels in the Active Beach Cluster. By learning from the experiences of small hotels that have successfully implemented green practices, valuable knowledge can be generated regarding effective strategies for implementing and managing such practices. This knowledge can not only help mitigate environmental issues but also generate benefits for the hotel business, enabling operators to implement green practices efficiently and sustainably.

## Objectives

To study the green practices in small hotels (green best practices) in Thailand.

To study the green factors influencing practices in small hotels (green best practices) in Thailand.

## Literature Review

### *Green Practices*

Drawing upon an extensive review of literature focusing on globally recognized green hotels, a comprehensive analysis was conducted to examine the practical implementation of Green Practices within these establishments. The findings were summarized and presented in Table 1, providing a succinct overview of the key aspects pertaining to the adoption and execution of sustainable initiatives by these leading hotels.

Based on the analysis from Table 1, hotels that have successfully implemented green practices can be classified into four dimensions:

Protecting the environment (PE): These hotels prioritize environmental sustainability by utilizing renewable energy sources, implementing measures to reduce pollution, incorporating eco-friendly building designs, and dedicating areas for agricultural production and energy generation systems.

**Table 1** The implementation of green practices from case study

| Hotel                               | Green practice implementation           |  |                                     |                                      |
|-------------------------------------|---|--|-------------------------------------|--------------------------------------|
| <i>Borgo Pignano (Italy)</i>        | Self-supplier and clean energy          | Green activity for customer                | Emphasizes locally sourced          | Cost saving                          |
| <i>The Scarlet (England)</i>        | Renewable energy sources                | Customers participate                      | Engages with the local community    | Envi-friendly operations             |
| <i>Campi Ya Kanzi (Kenya)</i>       | Conservation                            | Community-led activities                   | Community Engagement                | Branding/image                       |
| <i>Fogo Island Inn (Canada)</i>     | Envi-conscious design and construction  | Connect guests with nature                 | Support of local economies          | Branding/image                       |
| <i>Cuixmala (Mexico)</i>            | Protects/restores ecosystems            | Eco-conscious activities                   | Engages with communities            | Educational programs                 |
| <i>Camp Glenorchy (New Zealand)</i> | Eco-friendly infrastructure             | Offers immersive/transformative experience | Local staff/ green education        | Regenerative/ environmental educator |
| <i>Bangkok Treehouse (Thailand)</i> | Nature Preservation                     | Unique guest experiences                   | Supporting local farmers            | Differentiate                        |
| <i>Soneva Kiri (Thailand)</i>       | Utilizing energy-efficient technologies | Encourages customer to participate         | Supports communities' education     | Branding/image                       |
| <i>The Sarojin (Thailand)</i>       | Minimize its environmental impact       | Unique experiences                         | Partnering with local organizations | Work with public and private partner |

Developing and disseminating environmental awareness to customers (DEC): The concept of green is woven into the hotel experience, creating unique activities that leave a lasting impression on customers while raising awareness about the environment. These activities aim to engage and educate guests on sustainable practices and inspire them to adopt greener behaviors.

Optimizing the utilization of community resources (OCR): Successful green hotels actively collaborate with the surrounding communities or local residents. They foster knowledge exchange and provide opportunities for the community to contribute to the hotel's operations, enabling a sense of ownership and shared responsibility for sustainable development.

Integrating environmental concepts for competitive advantage (ICA): These hotels strive to enhance their performance and efficiency by reducing costs through sustainable practices. By implementing green initiatives, they create a distinct image in the market, attracting environmentally conscious guests and differentiating themselves from competitors.

By considering and integrating these four dimensions, hotels can achieve a holistic approach to green practices, benefiting the environment, customers, communities, and their own competitive advantage.

The Triple Bottom Line (TBL) is a sustainability-focused accounting framework that includes social, environmental, and financial factors as bottom-line measures. The TBL is an accounting framework with three parts: social, environmental, and economic. The TBL is a sustainability framework that measures a business's success in three key areas: profit, people, and

the planet (Arowoshegbe et al. 2016). Green practices, which aim to protect the environment through the cooperation of communities, increased customer awareness, and enhanced competitive advantage, are closely tied to the TBL framework. For instance, environmental practices such as reducing waste and emissions can help a business reduce its environmental impact and contribute to the planet aspect of the TBL (Florida & Davison, 2001). Similarly, customer practices such as providing sustainable products and services can help a business contribute to the people aspect of the TBL (Dao et al, 2011). Community practices such as supporting local communities can help a business contribute to the social aspect of the TBL (Loza, 2004). Competition practices such as promoting green practices in the industry can help a business contribute to the planet aspect of the TBL (Svensson & Wagner, 2015).

Based on an extensive literature review examining Green Practices and the analysis of various green hotel case studies, as well as a study of theories pertaining to the development of eco-friendly hotels, four key elements of the Green Practices variable have been identified: Optimizing the utilization of community resources (OCR), Integrating environmental concepts for competitive advantage (ICA), Developing and disseminating environmental awareness to customers (DEC), and Protecting the environment (PE).

### **Green factors**

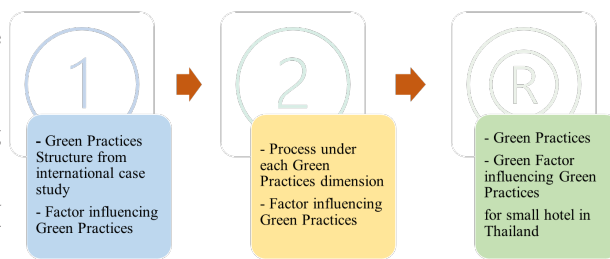
Green factors, also known as environmental factors, encompass various aspects that influence and guide hotels in adopting and implementing green practices (Ababneh, 2021). Understanding the green

factors that influence the adoption of green practices in hotels enables them to identify the specific factors that need to be emphasized or adjusted to ensure the successful implementation of green initiatives (Kamboj et al., 2022). By recognizing these influential factors, hotels can strategically focus their efforts on promoting and aligning with key drivers of green practices, enhancing their environmental performance, and meeting the expectations of environmentally conscious stakeholders (Shah, 2011). This knowledge empowers hotels to make informed decisions and tailor their approach to effectively integrate green into their operations. Several green factors play a significant role in motivating hotels to adopt and implement green practices. The following factors have been identified and presented in Table 2.

**Table 2** The factors influencing green practices from literature review

| Factors   | detail  | References   |
|---|---|--|
| 1. Strategic Planning   | The process of setting goals, formulating strategies, and allocating resources to achieve long-term green objectives  | Chung, 2020; Hsiao et al., 2018                                    |
| 2. Innovative and Energy-efficient                            | The adoption of environmentally friendly equipment, systems, and processes in hotel operations.   | Ali et al., 2008; Habash et al., 2014                              |
| 3. Perceived Green Standards                                  | The perception and recognition of hotels' environmental efforts by stakeholders including guests, employees, and industry associations.   | Anthony et al., 2014; Kim et al., 2017 ; Tingchi Liu, Butler, 2008 |
| 4. Competitors  | Competitors foster a sense of competition and drives continuous improvement in environmental performance.   | Green et al., 1998; Molina-Azorin et al., 2009                     |
| 5. Suppliers  | Partnering with green suppliers, hotels can access sustainable alternatives and reduce their ecological footprint.  | Abdou et al., 2020   |
| 6. Government Campaigns and Initiatives                       | It raises awareness about the importance of environmental responsibility and often provide incentives or regulations to encourage businesses to implement green practices.                                    | Ahmad, 2015; Kasim, 2007   |
| 7. Effective Marketing  | Green marketing strategies highlight a hotel's environmentally friendly features, eco-certifications, and sustainable services, creating a positive image and attracting environmentally conscious travelers. | Chan, 2013; Kasliwal & Agarwal, 2019                               |
| 8. The awareness and commitment of hotel owners or management | A strong environmental consciousness owner tends to invest in green initiatives, allocate resources, and drive sustainability efforts within the organization.  | De Grosbois, 2012  |
| 9. Collaboration with partners                                | Partnerships allow for knowledge-sharing, access to resources, and joint initiatives focused on green practices.  | Tarigan et al., 2021   |
| 10. Environmental Leadership                                  | Leaders create a culture of sustainability within the hotel, fostering employee engagement and encouraging the adoption of green practices.   | Kim et al., 2020   |
| 11. Green Knowledge   | Knowledge enables hoteliers to make informed decisions, implement effective green strategies, and continuously improve their environmental performance.   | Chen & Peng, 2012  |
| 12. Hotel Guests' Awareness                                   | Travelers are seeking eco-friendly accommodations and prefer hotels that demonstrate environmental responsibility.  | Gabarda-Mallorqui et al., 2018                                     |
| 13. Cost Allocation for Environment Activities                | By allocating funds for environmental activities, hotels demonstrate a commitment to sustainability and ensure the availability of resources needed to support green practices.                               | Alsharari et al., 2020   |

## Research Framework



**Figure 1** Research Framework

## Research Methodology

### 1. Population and Samples

The primary sources of information for achieving research objectives 1 and 2 were the owners/managers of small hotels located in the Active Beach Cluster region of Thailand (Chonburi, Rayong, Trad, and



Chanthaburi) who have successfully implemented green practices. The selection of specific sites, cases, and key informants in qualitative research is aimed at enhancing the researcher's understanding of the research problem and question within a specific context (Neuman, 2006; Creswell, 2014).

The site for this study, the Active Beach Cluster, was purposefully chosen for several reasons. Firstly, it is a popular destination for international green tourists in Thailand. Secondly, the region serves as a representative example of a distinct tourist destination characterized by natural attractions. Lastly, according to the Pollution Control Department (2022), the Active Beach Cluster faces significant pollution and waste disposal challenges, making it one of the most affected areas in the country.

In 2019, it was discovered that out of the 371 hotels in Thailand that received the Green Leaf Foundation standard and the green standard of the Department of Environmental Quality Promotion, only 48 were located within the Active Beach Cluster (Department of Environmental Quality Promotion, 2021). Furthermore, of these 48 hotels, only 18 were classified as small hotels that had achieved the aforementioned standards.

was initially planned for face-to-face in-depth interviews. However, the number of interviews was adjusted based on the concept of data saturation, where new data no longer provides additional insights (Charmaz, 2006). Ultimately, the study concluded with a total of 12 respondents, ensuring comprehensive coverage of all aspects of the interview questions.

The selection of the 12 key informants, who are owners/managers of small green hotels (best practice), was done purposively. The decision on the optimal number of key informants was based on achieving theoretical saturation, where new data no longer contributed significantly to the research questions. The sample selection criteria encompassed three main requirements:

**Hotel Size:** The informants were chosen based on the definition of small hotels according to the Thailand Hotel Act 2004, which includes hotels with less than 80 rooms.

**Recognition and Best Practices:** Hotels that have received awards or certification from DEQP's Green Hotel (2019-2020), Green Leaf standard, or other relevant organizations were considered.

**Experience in Green Management:** Informants were selected based on their experience and expertise in managing and implementing green or environmentally friendly practices at their hotels.

**Table 3** Profiles of Key Informants

| Code | Position                | Hotel Location | Firm Age (Year) | No of Room | Strengths/ Awards   |
|------|-------------------------|----------------|-----------------|------------|---|
| S1   | Hotel Manager           | Trat           | 7               | 71         | DEQP' Green Hotel 2019 (Silver)   |
| S2   | Human Resources Manager | Chonburi       | 13              | 53         | Green Leaf 2022   |
| S3   | Front Office Manager    | Rayong         | 8               | 40         | Green Leaf 2022   |
| S4   | Front Office Manager    | Chonburi       | 11              | 60         | DEQP' Green Hotel 2020 (Silver)   |
| S5   | Hotel Manager           | Chanthaburi    | 7               | 37         | DEQP' Green Hotel 2019 (Bronze)   |
| S6   | Owner                   | Chanthaburi    | 2               | 21         | Outstanding Architecture Silver Medal from the Association of Siamese Architects in the category of sustainability, community, environment, and society |
| S7   | General Manager         | Rayong         | 28              | 72         | UNESCO Sustainable Tourism Pledge   |
| S8   | Front Office Manager    | Trat           | 28              | 59         | Green Health Hotel by Department of Health  |
| S9   | General Manager         | Chonburi       | 7               | 47         | Green Health Hotel by Department of Health  |
| S10  | General Manager         | Trat           | 13              | 24         | DEQP' Green Hotel 2021 (Bronze)   |
| S11  | Front Office Manager    | Trat           | 17              | 26         | DEQP' Green Hotel 2021 (Silver)   |
| S12  | Human Resources Manager | Chonburi       | 9               | 75         | Green Health Hotel by Department of Health  |

In qualitative research, the determination of the sample size does not involve statistical calculations to achieve a specific level of accuracy. Instead, the selection of participants is guided by the research objectives and the criteria or characteristics of the study (Mack et al., 2005; Vanderstoep & Johnston, 2009). A sample size of 10 owners/managers of small green hotels (best practice)

## 2. Research Instrument

The interview form was a tool used in this research in conducting in-depth interviews to collect data from key informants. The key informants who provided data were small green hotels (best practice). Apart from the interview form, voice recording was also used during the interview.

Regarding interview questions for owners/managers of small hotels, the interview form contained four parts as illustrated below.

Part 1: Participant and business profiles-this part comprised 6 questions, namely, job position, firm size, firm age, level of service, ownership structure, and business strength or award recognition.

Part 2: The green practices of small hotels-this part evaluated components and processes that are necessary for a hotel to be considered "green".

Part 3: The green factors of small hotels-this part evaluated key factors that contribute to a hotel's success in implementing green practices.

Part 4: The green practice constraint-this part evaluated obstacles and limitations of the small hotel to be a green hotel.

### 3. Collection of Data

1) Primary data and secondary data. Primary data was collected through in-depth interviews conducted with 12 owners/managers of small hotels. The selection of these participants followed specific criteria outlined during the sample selection process. Factors considered included their willingness to participate in the interviews, their cooperation in providing detailed information, and their consent for the interviews to be audiotaped while ensuring confidentiality. The interview questions were designed in a semi-structured and open-ended format to guide the conversation. Each in-depth interview lasted approximately one hour. However, the optimal number of key informants and the duration of the interviews were determined based on the point of data saturation, where additional interviews no longer provided new insights. After the interviews were completed, the audio recordings were transcribed verbatim, and a content analysis approach was applied to analyze the data.

2) Secondary data, the second category of data collected, was obtained from various sources such as academic articles, research journals, textbooks, statistical information, reliable online sources, and previously conducted studies, dissertations, and documents. These secondary data sources were utilized to study related concepts, theories, and research instrument designs relevant to the research topic. The collected secondary data played a crucial role in complementing and enhancing the understanding of the research objectives.

### 4. Data Analysis

The qualitative data were gathered from in-depth interviews with the sampling groups including the owners/manager of small green hotels (best practice).

The methods of qualitative data analysis employed various tools and techniques according to research objective as follows:

1) To investigate the green practice, probing techniques was used during the interviews to delve deeper into specific topics or to seek clarification. The interviewer asked follow-up questions, requesting examples or elaboration, or encouraging interviewees to reflect on their experiences and provide specific details on how the green practice was conducted.

2) To investigate the green factor, probing techniques were also used during the interviews. Based on the responses provided by the interviewees regarding their successful implementation of green practices, the factors can be categorized into different dimensions or issues according to what the interviewee stated. By further exploring each variable, we can gain a deeper understanding of how these factors have contributed to the successful implementation of green practices and their implications.

## Results

### 1. Green Practices

The respondents were requested to delineate their respective implementations and procedures concerning Green Practices in four key areas, namely, Optimizing the utilization of community resources (OCR), Integrating environmental concepts for competitive advantage (ICA), Developing and disseminating environmental awareness to customers (DEC), and Protecting the environment (PE). The outcomes of this inquiry are presented in Table 4.

In summary, the interview results identified four key areas where small green hotels apply Green Practices to create benefits and foster a good environment: energy-saving measures, water management strategies, pollution and waste minimization efforts, and the adoption of renewable and clean energy sources. By implementing these practices, these hotels strive to reduce their environmental impact, promote sustainability, and provide guests with an eco-friendly and environmentally conscious experience.

From Table 3, it can be concluded that in the OCR dimension, hotels that are successful have implemented three issues, namely Efficient local resource usage, Green engagement with the community, and Green cooperation with government. In the ICA, there are five areas of operation: Differentiate, Branding/image, Environmental, Social and Governance, Cost reduction, and Supplier

**Table 4** Summary Results of Green Practices

| Dimension of Green Practice | Items                                    | Key Informants                                    |
|-----------------------------|--|---|
| OCR                         | Efficient local resource usage (7)       | S1, S2, S3, S5, S6, S10, S11                      |
|                             | Green engagement with community (7)      | S2, S3, S4, S6, S7, S9, S10                       |
| ICA                         | Green cooperation with government (4)    | S1, S3, S8, S11                                   |
|                             | Differentiate (2)                        | S5, S12   |
|                             | Branding/image (6)                       | S1, S3, S4, S6, S11, S12                          |
|                             | Environmental, Social and Governance (2) | S6, S7  |
| DEC                         | Cost reduction (4)                       | S1, S3, S5, S10                                   |
|                             | Supplier negotiation (3)                 | S2, S6, S12                                       |
|                             | High quality guest attraction (3)        | S4, S7, S8  |
|                             | Guest loyalty and satisfaction (5)       | S1, S6, S9, S11, S12                              |
| PE                          | Encourage customer to be more green (4)  | S1, S2, S5, S11                                   |
|                             | Energy Saving (5)                        | S3, S4, S5, S7, S10                               |
|                             | Water management (12)                    | S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12 |
|                             | Pollution and waste minimizing (8)       | S1, S3, S4, S5, S6, S7, S11, S12                  |
|                             | renewable and clean energy (3)           | S6, S7, S11                                       |

negotiation. High quality guest attraction, Guest loyalty and satisfaction, and Encourage customer to become greener fall under the DEC. PE comprising Energy Saving, Water management, Pollution and waste minimizing, and Renewable and clean energy.

## 2. Green factors

Following the establishment of Green Practices in the dimensions of ‘Optimizing the utilization of community resources’, ‘Integrating environmental concepts for competitive advantage’, ‘Developing and disseminating environmental awareness to customers’ and ‘Protecting the environment’, a study was conducted to investigate the factors influencing the successful implementation of these practices in small hotels. The findings revealed that the interviewees identified several key factors that significantly impacted the success of small hotels in implementing Green Practices (Table 5).

**Table 5** The factors influencing green practices obtained from interviews

| Factors                          | Opinion   | Interviewee                      |
|----------------------------------|---|----------------------------------|
| 1. Clear Organizational Identity | Clear organizational identity encompasses the values and principles of sustainability. This includes having a well-defined mission statement, establishing green objectives, and ensuring that sustainability is deeply embedded in the hotel's culture and operations.   | S2, S4, S6, S7, S9, S10, S12     |
| 2. Partnership                   | Collaboration and partnerships have played a significant role in successful implementation of Green Practices. Forming alliances with local environmental organizations, community groups, and suppliers who share our commitment to sustainability are also crucial factors.   | S1, S2, S5, S6, S8, S12          |
| 3. Owner's Awareness             | Owner must deeply commit to environmental sustainability and has incorporated high environmental awareness practices throughout the entire hotel. The owner actively promotes recycling and waste reduction initiatives among the staff. Owner must also ensure that all hotel supplies, from guest amenities to cleaning products follow green principals. | S1, S3, S4, S7, S10, S11         |
| 4. Environmental Leadership      | Environmental Leadership involves having individuals or teams responsible for spearheading green initiatives, setting goals, monitoring progress, and inspiring others within the organization to embrace and support Green Practices.  | S3, S5, S6, S7, S9, S11          |
| 5. Trend                         | By staying ahead of the curve, hotels can adapt the practices to meet the changing demands of environmentally conscious guests and ensure that our hotel remains relevant and competitive in the market.  | S1, S2, S4, S6, S7, S8, S11, S12 |
| 6. Government Regulations        | By complying with government regulations, the hotel must not only contribute to a healthier environment but also demonstrate commitment to responsible and ethical operations.  | S4, S5, S9                       |
| 7. Green Knowledge               | Staff training is crucial for successful implementation of Green Practices, enhancing understanding of eco-friendly principles. This equips hotel to make informed decisions, implement effective initiatives, and educate guests on sustainable living.  | S1, S3, S5, S6, S9, S11, S12     |
| 8. Employee Adaptability         | The adaptability of employees is critical in ensuring the successful implementation of Green Practices. Hotel must encourage and support staff in embracing green practices and integrating it into their daily routines.   | S2, S3, S7, S11, S12             |
| 9. Rewards and Incentives        | Rewards not only motivate staff to actively engage in green practices but also foster a sense of pride and ownership in the success of our sustainability initiatives.  | S1, S2, S6                       |
| 10. Facilities and Resources     | Hotel should allocate resources towards training staff, implementing eco-friendly technologies, and maintaining sustainable practices throughout all facilities.  | S3, S5, S8, S10, S11, S12        |
| 11. Hotel guests' awareness      | Creating awareness among hotel guests about Green Practices is crucial. Hotel should provide information in guest rooms, common areas, and on website to educate guests about green initiatives and encourage guests' participation.  | S1, S7, S8, S9, S12              |



**Table 5** The factors influencing green practices obtained from interviews

| Factors  | Opinion  | Interviewee             |
|--|--|-------------------------|
| 12. Government campaign                          | Hotel actively supports and engages in government-led initiatives and campaigns, which enhance public awareness, provide guidance, and create a favorable environment for adopting Green Practices in establishment and the wider community.   | S3, S4, S8, S10         |
| 13. Cost allocation for environmental activities | A dedicated budget for environmental activities is crucial in implementing Green Practices. The hotel prioritizes investment with a specific budget for initiatives like renewable energy, waste management, and employee training, showcasing commitment to long-term sustainability and resource support for green initiatives.                            | S1,S2,S5, S6,S7,S9, S11 |
| 14. Infrastructure and system investment         | Investing in infrastructure and systems supporting Green Practices is crucial for successful implementation. Hotel has prioritized investments in technologies for monitoring energy and water usage, waste management, and operational efficiency. These investments enhance sustainability efforts and improve overall hotel efficiency and profitability. | S5, S6, S7, S11         |

Based on the interview findings outlined in the preceding section on “Factors Influencing Green Practice,” it was observed that certain factors were raised by the participants. These factors align with the analyzed and synthesized.

Furthermore, the interviewees provided new factors which were not covered in the review. Consequently, it became feasible to compile and condense the Green Factors, as illustrated in Table 6.

**Table 6** Summary of Green Factors

| No | Factor                                       | Sources           |               |
|----|--|-------------------|---------------|
|    |  | Literature Review | Best Practice |
| 1  | Strategic planning                           | •                 |               |
| 2  | Innovative and energy-efficient technologies | •                 |               |
| 3  | Perceived Green standard and green law       | •                 |               |
| 4  | Competitors                                  | •                 |               |
| 5  | Supplier                                     | •                 |               |
| 6  | Government campaign                          | •                 |               |
| 7  | Effective marketing                          | •                 |               |
| 8  | Owner’s awareness                            | •                 | •             |
| 9  | Partner                                      | •                 | •             |
| 10 | Environmental leadership                     | •                 | •             |
| 11 | Green knowledge                              | •                 | •             |
| 12 | Hotel guests’ awareness                      | •                 | •             |
| 13 | Cost allocation for environment activities   | •                 | •             |
| 14 | Infrastructure and system investment         |                   | •             |
| 15 | Trend  |                   | •             |
| 16 | Government regulations                       |                   | •             |
| 17 | Employee adaptability                        |                   | •             |
| 18 | Rewards and incentive                        |                   | •             |
| 19 | Facilities and Resources                     |                   | •             |
| 20 | Clear Organizational identity                |                   | •             |

Based on the data in Table 6, it is evident that there exists 13 Green Factors solely derived from the literature reviews. Additionally, there are 13 Green Factors identified from interviews conducted with small hotels (best practices). Furthermore, there are 6 overlapping factors common to both sources.

Consequently, this study encompasses a comprehensive compilation of 20 Green Factors: Strategic planning, Innovative and energy-efficient technologies, Perceived Green standard and green law, Competitors, Supplier, Government campaign, Effective marketing, Owner’s awareness, Partner, Environmental leadership, Green knowledge, Hotel guests’ awareness, Cost allocation for environment activities, Infrastructure and system investment, Trend, Government regulations, Employee adaptability, Rewards and incentive, Facilities and Resources, and Clear Organizational identity.

**Discussion**

Based on the study results, a conceptual framework was developed to illustrate the components and potential relationships of Green Practices and Green Factors. The analysis revealed that Green Practices, serving as the dependent variable, encompassed the elements denoted as Optimizing the utilization of community resources (OCR), Integrating environmental concepts for competitive advantage (ICA), Developing and disseminating environmental awareness to customers (DEC), and Protecting the environment (PE).

Optimizing the utilization of community resources, small hotels prioritize efficient local resource usage by implementing energy conservation measures, water-saving strategies, and effective waste management practices. Second, small hotels foster green engagement with the community through sourcing locally, collaborating with local organizations, and engaging in community outreach activities. Additionally, ensuring green cooperation with the government by complying with regulations, seeking incentives and support for sustainable initiatives, and actively advocating and participating in local environmental committees or forums are also crucial.

## Conceptual Framework

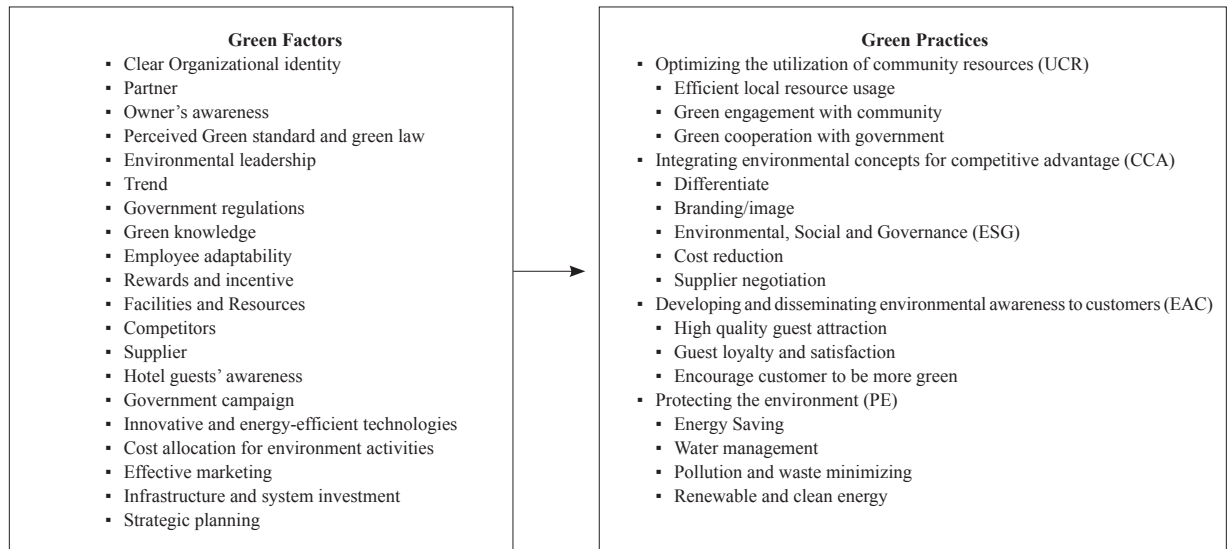


Figure 2 Conceptual Framework

To integrate environmental concepts into small hotels and to gain a competitive advantage, the small hotels focus on key actions; First, differentiate hotel by highlighting unique environmental features or practices. Second, develop a strong brand image that emphasizes the hotel's commitment to sustainability. Third, incorporate Environmental, Social, and Governance (ESG) principles into business practices. Fourth, identify cost reduction opportunities through energy and resource efficiency. Lastly, engage with suppliers who share environmental values and negotiate contracts that prioritize sustainability.

For developing and disseminating environmental awareness to customers, small hotels focus on attracting high-quality guests by promoting the hotel's environmental initiatives. Ensure guest loyalty and satisfaction by implementing sustainable practices throughout the hotel and addressing any environmental concerns. Encourage customers to be greener by actively engaging with them, providing educational materials, and offering incentives for eco-friendly behavior. These actions will raise environmental awareness, attract environmentally conscious guests, and foster a culture of sustainability.

To protect the environment, small hotels focus on energy-saving measures, efficient water management, minimizing pollution and waste, and utilizing renewable and clean energy sources. The implementation of

energy-saving practices such as using energy-efficient lighting and optimizing HVAC systems are also the key. Moreover, small hotels manage water resources effectively through the installation of low-flow fixtures and encouraging guests to participate in water conservation efforts. Small hotels minimize pollution and waste by implementing recycling programs and proper disposal of hazardous materials. Finally, small hotels explore the use of renewable energy sources like solar panels and invest in energy-efficient equipment.

The findings of the investigation shed light on the comprehensive nature of Green Practices within the context of small hotels. The identification of 20 distinct Green Factors highlights the range of elements that contribute to the successful implementation of green practices in these establishments. These Green Factors encompass various aspects such as owner's awareness, green knowledge, hotel guests' awareness, and effective marketing. Together, these factors provide a framework and guidance for small hotel owners to effectively integrate environmentally responsible practices into their operations. By incorporating these Green Factors into their strategies, small hotels can enhance their green performance, minimize their environmental impact, and contribute to a more ecologically conscious hospitality industry.

## Suggestion

This study is the qualitative part of the research on a model for green practices in the Thailand hotel business. This study primarily focuses on small hotel operators or the supply side to explore the green practices for small hotels in Thailand with the factors influencing green practices to be success. The findings of this research were utilized to construct and analyze a model for enhancing Green Practices in the Thai hotel industry, serving as an initial investigation in this study. Data pertaining to the subjects and Green Factors were subjected to Exploratory Factor Analysis (EFA) to identify and group relevant variables. Subsequently, Multiple Regression Analysis was employed to examine the impact of these factors on Green Practices. Statistically significant variables were then utilized to develop the aforementioned model aimed at enhancing Green Practices within the Thai hotel business context.

However, future research should also explore the demand side or consumers' perspective to gain a comprehensive understanding of the effectiveness of green practices according to the conceptual framework proposed in this study. Investigating the alignment between green practices and the needs and preferences of small hotel users would provide valuable insights into consumer perceptions and behaviors towards sustainable accommodations. Additionally, assessing the extent to which the implementation of green practices, as outlined in this research, can attract high-quality tourists and enhance the competitiveness of small hotels is crucial. By examining these aspects, future studies can provide a more holistic assessment of the impact and potential benefits of adopting the proposed green practices model, both from the consumer perspective and in terms of improving the hotels' market position.

## Acknowledgement

This research was under the Royal Golden Jubilee Ph.D. Scholarship Program by Thailand Research Fund (TRF) and National Research Council of Thailand (NRCT) (Grant No.PHD/0173/2561).

## References

- Anthony, E. J., Boot-Handford, M. E., Abanades, J. C., Blunt, M. J., Brandani, S., Mac Dowell, N., ... & Fennell, P. S. (2014). Carbon capture and storage update. *Energy & Environmental Science*, 7(1), 130-189.
- Ababneh, O. M. A. (2021). How do green HRM practices affect employees' green behaviors? The role of employee engagement and personality attributes. *Journal of Environmental Planning and Management*, 64(7), 1204-1226.
- Abdou, A. H., Hassan, T. H., & El Dief, M. M. (2020). A description of green hotel practices and their role in achieving sustainable development. *Sustainability*, 12(22), 9624.
- Agyeiwaah, E. (2020). The contribution of small accommodation enterprises to sustainable solid waste management. *Journal of Hospitality and Tourism Management*, 44, 1-9.
- Ahmad, S. (2015). Green human resource management: Policies and practices. *Cogent business & management*, 2(1), 1030817.
- Alsharari, N. M., Alomari, A., & Alnesafi, A. (2020). Costs allocation practices and operations management in the hotels' industry: evidence from UAE. *International Journal of Innovation, Creativity, and Change*, 14(5), 512-545.
- Ali, Y., Mustafa, M., Al-Mashaqbah, S., Mashal, K., & Mohsen, M. (2008). Potential of energy savings in the hotel sector in Jordan. *Energy Conversion and Management*, 49(11), 3391-3397.
- Arowoshegbe, A. O., Emmanuel, U., & Gina, A. (2016). Sustainability and triple bottom line: An overview of two interrelated concepts. *Igbinedion University Journal of Accounting*, 2(16), 88-126.
- Chan, E. S. (2013). Gap analysis of green hotel marketing. *International Journal of Contemporary Hospitality Management*, 25(7), 1017.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. sage.
- Chen, A., & Peng, N. (2012). Green hotel knowledge and tourists' staying behavior. *Annals of Tourism Research*, 39(4), 2211-2219.
- Chung, K. C. (2020). Green marketing orientation: Achieving sustainable development in green hotel management. *Journal of Hospitality Marketing & Management*, 29(6), 722-738.
- Creswell, J. W. (2014). *A concise introduction to mixed methods research*. NY: SAGE publications.
- Dao, V., Langella, I., & Carbo, J. (2011). From green to sustainability: Information Technology and an integrated sustainability framework. *The Journal of Strategic Information Systems*, 20(1), 63-79.
- De Grosbois, D. (2012). Corporate social responsibility reporting by the global hotel industry: Commitment, initiatives and performance. *International Journal of Hospitality Management*, 31(3), 896-905.
- Department of Environmental Quality Promotion. (2021). *greendigitallibrary*. Retrieved from greendigitallibrary: <https://greendigitallibrary.deqp.go.th/news/detail/276>
- Ekanem, C. H., Ekanem, H. E., Eyenaka, F. D., & Isaiah, E. A. (2013). Zero waste: an innovation for less polluting emission processes, resource management practices and policies. *Mediterranean Journal of Social Sciences*, 4(8), 53.

- Fernández-Robin, C., Celemin-Pedroche, M. S., Santander-Astorga, P., & Alonso-Almeida, M. D. M. (2019). Green practices in hospitality: A contingency approach. *Sustainability*, 11(13), 3737.
- Filimonau, V., Dickinson, J., Robbins, D., & Huijbregts, M. A. (2011). Reviewing the carbon footprint analysis of hotels: Life Cycle Energy Analysis (LCEA) as a holistic method for carbon impact appraisal of tourist accommodation. *Journal of Cleaner Production*, 19(17-18), 1917-1930.
- Florida, R., & Davison, D. (2001). Gaining from green management: environmental management systems inside and outside the factory. *California management review*, 43(3), 64-84.
- Gabarda-Mallorquí, A., Fraguell, R. M., & Ribas, A. (2018). Exploring environmental awareness and behavior among guests at hotels that apply water-saving measures. *Sustainability*, 10(5), 1305.
- Graafland, J., & Smid, H. (2016). Environmental impacts of SMEs and the effects of formal management tools: Evidence from EU's largest survey. *Corporate Social Responsibility and Environmental Management*, 23(5), 297-307.
- Green Leaf Foundation. (2022) *Green Leaf Hotel*. Retrieved from [http://www.greenleafthai.org/th/green\\_hotel/](http://www.greenleafthai.org/th/green_hotel/) (In Thai)
- Green, K., Morton, B., & New, S. (1998). Green purchasing and supply policies: do they improve companies' environmental performance?. *Supply Chain Management: An International Journal*, 3(2), 89-95.
- Habash, G., Chapotchkine, D., Fisher, P., Rancourt, A., Habash, R., & Norris, W. (2014). Sustainable design of a nearly zero energy building facilitated by a smart microgrid. *Journal of renewable energy*, 2014.
- Houghton, J. (2009). *Global warming: the complete briefing*. Cambridge: Cambridge university press.
- Hsiao, Y. F., Tsai, P. J., Chen, H. S., Lin, S. X., Hung, C. C., Lee, C. H., ... & Chen, Y. C. (2018). Highly efficient coherent optical memory based on electromagnetically induced transparency. *Physical review letters*, 120(18), 183602.
- Ivkov, M., Blešić, I., Janičević, S., Kovačić, S., Miljković, Đ., Lukić, T., & Sakulski, D. (2019). Natural disasters vs hotel industry resilience: An exploratory study among hotel managers from Europe. *Open Geosciences*, 11(1), 378-390.
- Jayaweera, T. (2015). Impact of work environmental factors on job performance, mediating role of work motivation: A study of hotel sector in England. *International journal of business and management*, 10(3), 271.
- Kamboj, S., Matharu, M., Lim, W. M., Ali, F., & Kumar, S. (2022). Consumer adoption of green hotels: understanding the role of value, innovation, and involvement. *Journal of Hospitality Marketing & Management*, 31(7), 819-849.
- Kasim, A. (2007). Corporate environmentalism in the hotel sector: Evidence of drivers and barriers in Penang, Malaysia. *Journal of Sustainable Tourism*, 15(6), 680-699.
- Kasim, A. (2009). Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, 17(6), 709-725.
- Kasim, A., Gursoy, D., Okumus, F., & Wong, A. (2014). The importance of water management in hotels: a framework for sustainability through innovation. *Journal of Sustainable Tourism*, 22(7), 1090-1107.
- Kasliwal, N., & Agarwal, S. (2019). Green marketing initiatives and sustainable issues in hotel industry. In *Green Business: Concepts, Methodologies, Tools, and Applications* (pp. 512-529). Pennsylvania: IGI Global.
- Kim, S.-H., Lee, K., & Fairhurst, A. (2017). The review of "green" research in hospitality, 2000-2014: Current trends and future research directions. *International Journal of Contemporary Hospitality Management*, 29(1), 226.
- Kim, W. G., McGinley, S., Choi, H.-M., & Agmapisarn, C. (2020). Hotels' environmental leadership and employees' organizational citizenship behavior. *International Journal of Hospitality Management*, 87, 102375.
- Loza, J. (2004). Business–community partnerships: The case for community organization capacity building. *Journal of Business Ethics*, 53, 297-311.
- Mack, N., Woodsong, C., MacQueen, K. M., & Guest, G. (2005). *Qualitative research methods*. North Carolina :Family Health International.
- Malcheva, M. (2019). Green boutique hotels-marketing and economic benefits. *Известия на Съюза на учените-Варна. Серия Икономически науки*, 8(3), 179-187.
- Marchant, I., & Cloy, J. (2017). Weighing Up the Costs: Food Waste Monitoring And.
- Matichon. (2018, January 27). *Coral Reef Health Crisis: Plastic Pollution Endangers Sea Life, 140,000 Rai Degraded in Thai Waters, Cornell Study Finds*. Retrieved January 27, 2018 from Matichon Online: [https://www.matichon.co.th/local/quality-life/news\\_818631](https://www.matichon.co.th/local/quality-life/news_818631)
- Mensah, I. (2006). Environmental management practices among hotels in the greater Accra region. *International journal of hospitality management*, 25(3), 414-431.
- Molina-Azorín, J. F., Claver-Corts, E., Pereira-Moliner, J., & Tarí, J. J. (2009). Environmental practices and firm performance: an empirical analysis in the Spanish hotel industry. *Journal of cleaner production*, 17(5), 516-524.
- Morrison, A. (1998). Small firm statistics: a hotel sector focus. *Service Industries Journal*, 18(1), 132-142.
- National Statistical Office. (2018). Number of hotel in Thailand. Retrieved January 27, 2018 from [https://ittdashboard.nso.go.th/preview.php?id\\_project=9](https://ittdashboard.nso.go.th/preview.php?id_project=9)
- Neuman, W. L. (2006). *Workbook for Neumann Social research methods: qualitative and quantitative approaches*. Allyn & Bacon: Allyn & Bacon.

- Nitorisavut, R., Sangsnit, N., Dhiralaksh, J., & Nitivattananon, V. (2014). Low carbon hotels towards sustainable tourism in Koh Chang and Neighbouring Islands, Thailand. *GMSARN International Journal*, 125.
- Office of Natural Resources and Environmental Policy and Planning. (2019) *Annual report 2019 Office of Natural Resources and Environmental Policy and Planning*. Retrieved from <https://search-library.parliament.go.th/cgi-bin/koha/opac-imageviewer.pl?biblionumber=97655>
- Pikkemaat, B., & Zehrer, A. (2016). Innovation and service experiences in small tourism family firms. *International Journal of Culture, Tourism and Hospitality Research*, 10(4), 343-360.
- Pollution Control Department. (2022). *Report on the situation of municipal solid waste disposal sites in Thailand* Retrieved from [https://www.pcd.go.th/wp-content/uploads/2023/04/pcdnew-2023-04-11\\_03-13-24\\_292638.pdf](https://www.pcd.go.th/wp-content/uploads/2023/04/pcdnew-2023-04-11_03-13-24_292638.pdf)
- Shah, K. U. (2011). Strategic organizational drivers of corporate environmental responsibility in the Caribbean hotel industry. *Policy Sciences*, 44, 321-344.
- Svensson, G., & Wagner, B. (2015). Implementing and managing economic, social and environmental efforts of business sustainability: Propositions for measurement and structural models. *Management of Environmental Quality: An International Journal*, 26(2), 195-213.
- Tangon, S., Chontanawat, J., & Chiarakorn, S. (2018). Factors affecting electricity consumption of hotel buildings in Thailand. *Asia-Pacific Journal of Science and Technology*, 23(1).
- Tarigan, Z. J. H., Andreani, F., & Basana, S. R. (2021). The effect of supply chain integration on hotel performance through green supply chain management. *Management Science Letter*, 11(8), 2175 -2184
- Thamrongnawasawat, T. (2018). *Ecologist rates Thai coral reef decay rate as alarming*. Bangkok Post. Retrieved from <https://www.bangkokpost.com/thailand/general/1403638/ecologist-rates-thai-coral-reef-decay-rate-as-alarming>
- Tingchi Liu, M., Anthony Wong, I., Shi, G., Chu, R., & L. Brock, J. (2014). The impact of corporate social responsibility (CSR) performance and perceived brand quality on customer-based brand preference. *Journal of Services marketing*, 28(3), 181-194.
- U.S. Energy Information Administration. (2018). Commercial Buildings. *Energy Explained*. Retrieved from <https://www.eia.gov/energyexplained/use-of-energy/commercial-buildings.php>
- Vanderstoep, S. W., & Johnston, D. D. (2009). Methods for everyday life: Blending qualitative and quantitative approaches. *San Francisco: Jossey-Bass*. Young, KS (1996). *Internet addiction: The emergence of a new clinical disorder*. *Cyber Psychology and Behavior*, 1(3), 237-244.
- Victor, D. G. (2011). *Global warming gridlock: creating more effective strategies for protecting the planet*. Cambridge University Press.